

### 2009 Science Assessment Content

Guided by a new framework, the NAEP science assessment was updated in 2009 to keep the content current with key developments in science, curriculum standards, assessments, and research. The 2009 framework organizes science content into three broad content areas.

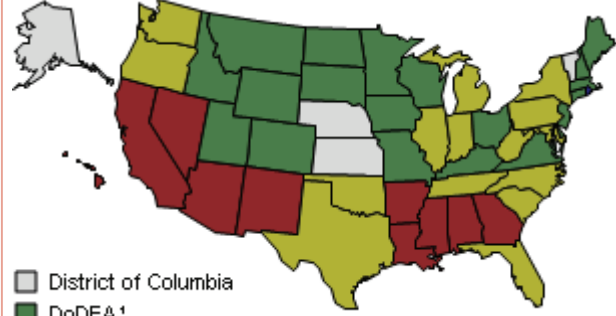
**Physical science** includes concepts related to properties and changes of matter, forms of energy, energy transfer and conservation, position and motion of objects, and forces affecting motion.

**Life science** includes concepts related to organization and development, matter and energy transformations, interdependence, heredity and reproduction, and evolution and diversity.

**Earth and space sciences** includes concepts related to objects in the universe, the history of the Earth, properties of Earth materials, tectonics, energy in Earth systems, climate and weather, and biogeochemical cycles.

The 2009 science assessment was composed of 143 questions at grade 4, 162 at grade 8, and 179 at grade 12. Students responded to only a portion of the questions, which included both multiple-choice questions and questions that required a written response.

### Compare the Average Score in 2009 to Other States/Jurisdictions



□ District of Columbia  
■ DoDEA<sup>1</sup>

<sup>1</sup> Department of Defense Education Activity (overseas and domestic schools).

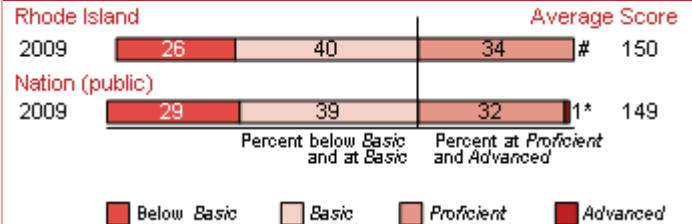
In 2009, the average score in **Rhode Island** was

- lower than those in 21 states/jurisdictions
- higher than those in 10 states/jurisdictions
- not significantly different from those in 15 states/jurisdictions
- 5 states/jurisdictions did not participate

### Overall Results

- In 2009, the average score of fourth-grade students in Rhode Island was 150. This was not significantly different from the average score of 149 for public school students in the nation.
- The percentage of students in Rhode Island who performed at or above the NAEP *Proficient* level was 34 percent in 2009. This percentage was not significantly different from the nation (32 percent).
- The percentage of students in Rhode Island who performed at or above the NAEP *Basic* level was 74 percent in 2009. This percentage was not significantly different from the nation (71 percent).

### Achievement-Level Percentages and Average Score Results



\* Significantly different ( $p < .05$ ) from Rhode Island. Significance tests were performed using unrounded numbers.  
# Rounds to zero.

NOTE: The percentage at *Advanced* was higher in the Nation (0.56) than in Rhode Island (0.25). Detail may not sum to totals because of rounding.

### Results for Student Groups in 2009

Reporting Groups	Percent of students	Avg. score	Percentages at or above		Percent at Advanced
			Basic	Proficient	
<b>Gender</b>					
Male	52	151	74	36	#
Female	48	149	73	32	#
<b>Race/Ethnicity</b>					
White	69	161	86	44	#
Black	9	126	46	10	#
Hispanic	18	124	44	9	#
Asian/Pacific Islander	3	152	71	37	1
American Indian/Alaska Native	1	‡	‡	‡	‡
<b>National School Lunch Program</b>					
Eligible	41	132	53	14	#
Not eligible	59	163	88	48	#

# Rounds to zero.

‡ Reporting standards not met.

NOTE: Detail may not sum to totals because of rounding, and because the "Information not available" category for the National School Lunch Program, which provides free/reduced-price lunches, and the "Unclassified" category for race/ethnicity are not displayed.

### Score Gaps for Student Groups

- In 2009, male students in Rhode Island had an average score that was not significantly different from female students.
- In 2009, Black students had an average score that was 34 points lower than White students. This performance gap was not significantly different from the nation (35 points).
- In 2009, Hispanic students had an average score that was 37 points lower than White students. This performance gap was not significantly different from the nation (32 points).
- In 2009, students who were eligible for free/reduced-price school lunch, an indicator of low family income, had an average score that was 31 points lower than students who were not eligible for free/reduced-price school lunch. This performance gap was not significantly different from the nation (29 points).

NOTE: Statistical comparisons are calculated on the basis of unrounded scale scores or percentages.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2009 Science Assessment.